BIOL 4432/5432 - Ichthyology
Dr. J. Derek Hogan
Lecture - 11-12:15 TR Room: CI-127, 825-5883
james.hogan@tamucc.edu

Dr. David S. Portnoy
825-2859
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Dr. Hogan’s Office Hours: (subject to change)
Thursday: 1:30 – 3:30, and available upon appointment.

Dr. Portnoy’s Office Hours: (subject to change)
Tuesday: 1:30 – 3:30, and available upon appointment.

COURSE DESCRIPTION:
Fish are fascinating animals and phenomenally diverse. They occur in both fresh and saltwater habitats and inhabit all parts of the globe. Together we will learn about the biology, ecology, systematics and evolution of fishes in a broad global context. Prerequisite: A strong background in zoology will be useful for this course, as such BIOL 3414 is a prerequisite, failing that formal consent of instructor may be given. 4 sem. hrs. (3:3)

PRIMARY TEXTS:
One of: (strongly recommended).

LAB TEXTS:
- Merryman, Rainer, McKee & Murdy. 2012. McKee “key” (2nd ed.) Available at: http://texas-seagrant.tamu.edu/WhatWeDo/online%20publications/FishKey/SaltWaterKey020813sm.pdf (required).
- McEachran & Fechhelm. 2005.Fishes of the Gulf of Mexico (required but there is a copy in the lab)

LEARNING OUTCOMES:
1. Become familiar with the marine and freshwater fishes in both lecture and lab.
2. Demonstrate an understanding of the basic anatomy and physiology of fishes.
3. Demonstrate and understanding of the form, function and diversity of fishes globally
4. Exhibit knowledge of the evolutionary relationships between groups of fishes
5. Demonstrate an ability to identify common species in Texas and beyond our area

GRADING:
Lecture (60%):
- Mid Term I (15%)
- Mid Term II (15%)
- Final Exam (30%)

Lab (40%):
- Lab practical (16%)
- Attendance/Participation (4%)
- Species Scavenger Hunt (5%)
- Fish Osteology Project (8%)
- Weekly Lab Exercises (7%)

**LECTURE OUTLINE:** (lecture outline is subject to change at the discretion of the instructor)

**August**
R 28th - Syllabus, course Intro – Dave, Derek

**September**
T 1st – History of ichthyology and systematics - Derek
R 4th – Respiration & circulation - Derek
T 9th – Metabolism, mineral balance & thermoregulation - Derek
R 11th – Bouyancy & Locomotion – Derek
T 16th – Reproductive biology & development -Dave
R 18th – Skeleton, skin, scales – Dave
T 23rd – Neurosensory systems -Dave
R 25th - Exam I
T 30th – Systematics I: evolution of fishes Early fishes Agnatha and early Gnathostomes - Derek

**October**
R 2nd - Systematics II: Chondrichthys - Dave
T 7th - Systematics IV: Bony Fishes I, Ancient Lineages Sarcopterygii through Neopterygians-Derek
R 9th - Systematics V: Bony Fishes II, Osteoglossomorpha, Elopomorpha, Ostarioclupeomorpha - Derek
T 14th – Systematics VI: Boney Fishes III Euteleostei – Protacanthopterygii – Paracanthopterygii - Dave
R 16th – Systematics VII: Boney Fishes IV, Euteleostei - Acanthopterygii – Mugiliformes-Beryciformes - Dave
T 21st – Systematic VII Euteleostei - Acanthopterygii-Scorpaeniformes – Tetraodontiformes -Dave
R 23rd - Open Date
T 28th - Exam II
R 30th - Introduction to Zoogeography of fishes – Derek or Dave

**November**
T 4th – Marine fishes of the Gulf of Mexico - Dave
R 6th – Freshwater fishes of Texas - Dave
T 11th – Polar, Temperate marine fishes -Derek
R 13th – Semitropical, Tropical marine fishes -Derek
T 18th – Freshwater fishes -Derek
R 20th – Deep sea fishes, cave fishes and other extreme environments -Dave
T 25th – Open Date
R 27th – Graduate Student Lectures

**December**
Dec 2nd – Exam Review

12th – 18th – Final exams week

**Exam Schedule**
MID TERM I – Thursday September 25th
MID TERM II – Thursday October 28th
FINAL EXAM – week of 4 – 10th December
**Academic Integrity/Plagiarism**

University students are expected to conduct themselves in accordance with the highest standards of academic honesty. Academic misconduct for which a student is subject to penalty includes all forms of cheating, such as illicit possession of examinations or examination materials, falsification, forgery, complicity or plagiarism. (Plagiarism is the presentation of the work of another as one’s own work.) In this class, academic misconduct or complicity in an act of academic misconduct on an assignment or test will result in ( ).

**Dropping a Class**

I hope that you never find it necessary to drop this or any other class. However, events can sometimes occur that make dropping a course necessary or wise. Please consult with me before you decide to drop to be sure it is the best thing to do. Should dropping the course be the best course of action, you must initiate the process to drop the course by going to the Student Services Center and filling out a course drop form. Just stopping attendance and participation WILL NOT automatically result in your being dropped from the class. ( ) is the last day to drop a class with an automatic grade of “W” this term.

**Statement of Civility and Expected Classroom Behavior**

Texas A&M University-Corpus Christi has a diverse student population that represents the population of the state. Our goal is to provide you with a high quality educational experience that is free from repression. You are responsible for following the rules of the University, city, state and federal government. We expect that you will behave in a manner that is dignified, respectful and courteous to all people, regardless of sex, ethnic/racial origin, religious background, sexual orientation or disability. Behaviors that infringe on the rights of another individual will not be tolerated.

**Grade Appeals (College of Science and Engineering Version)**

As stated in University Procedure 13.02.99.C2.01, Student Grade Appeal Procedures, a student who believes that he or she has not been held to appropriate academic standards as outlined in the class syllabus, equitable evaluation procedures, or appropriate grading, may appeal the final grade given in the course. The burden of proof is upon the student to demonstrate the appropriateness of the appeal. A student with a complaint about a grade is encouraged to first discuss the matter with the instructor. For complete details, including the responsibilities of the parties involved in the process and the number of days allowed for completing the steps in the process, see University Procedure 13.02.99.C2.01, Student Grade Appeal Procedures. These documents are accessible through the University Rules website at http://www.tamucc.edu/provost/university_rules/index.html, and the College of Science and Engineering Grade Appeals webpage (http://sci.tamucc.edu/students/GradeAppeal.html). For assistance and/or guidance in the grade appeal process, students may contact the chair or director of the appropriate department or school, the Office of the College of Science and Engineering Dean, or the Office of the Provost.

**Disabilities Accommodations**

The Americans with Disabilities Act (ADA) is a federal anti-discrimination statute that provides comprehensive civil rights protection for persons with disabilities. Among other things, this legislation requires that all students with disabilities be guaranteed a learning environment that provides for reasonable accommodation of their disabilities. If you believe you have a disability requiring an accommodation, please call or visit Disability Services at (361) 825-5816 in Corpus Christi Hall 116.

If you are a returning veteran and are experiencing cognitive and/or physical access issues in the classroom or on campus, please contact the Disability Services office for assistance at (361) 825-5816.

**Statement of Academic Continuity**
In the event of an unforeseen adverse event, such as a major hurricane and classes could not be held on the campus of Texas A&M University–Corpus Christi; this course would continue through the use of Blackboard and/or email. In addition, the syllabus and class activities may be modified to allow continuation of the course. Ideally, University facilities (i.e., emails, web sites, and Blackboard) will be operational within two days of the closing of the physical campus. However, students need to make certain that the course instructor has a primary and a secondary means of contacting each student.